System Test Case Descriptions - Release 1.0

TEST CASE ID:	0701
TEST CASE NAME:	Validate User Request

PURPOSE:	Verify the validation + acceptance of a user-defined request for a specified analysis output product. Verify error checking for incorrect user input. Verify successful save, edit, and recall of user-defined request files.
DESCRIPTION:	Create user requests for analysis products (both plot + report). Attempt creation of invalid requests (invalid times, invalid mnemonic names, missing fields, etc.). Demonstrate successful save and recall of user-defined request files. This test will also verify GUI functionality from an Analysis perspective.
LVL-1 THREADS:	
LVL-2 THREADS:	7.2.1.1
TEST_INPUTS:	User input to define and create analysis requests
PREREQUISITES:	Available CCS, assume PDB50A has been loaded, test automation software (XRUNNER script main0701)
EXPECTED RESULTS:	Successful creation of requests for analysis products. Successful save and recall of user-defined analysis requests. Acceptance of user-defined requests by both the GUI and the Analysis processes.
EVAL. CRITERIA:	Verify that the request defined by the user is accepted for analysis processing. Verify that erroneous input selections are not accepted by the GUI. Verify proper error checking and handling of invalid input.

System Test Case Descriptions - Release 1.0

TEST CASE ID:	0702
TEST CASE NAME:	Process User Request for Output

PURPOSE:	Verify the acceptance of a user-defined request for analysis processing. Verify reporting of processing status to the user.
DESCRIPTION:	Submit user requests for analysis processing
LVL-1 THREADS:	
LVL-2 THREADS:	7.2.1.2 7.2.2.1p 7.2.2.2 7.2.2.3 7.2.2.4 7.2.7.1 7.2.7.2 7.2.7.3
TEST_INPUTS:	User-defined requests created in Test Case #0701
PREREQUISITES:	Available CCS, test data, test automation software (XRUNNER) scripts
EXPECTED RESULTS:	Acceptance of user-defined request for output. Correct reporting of processing status to the user.
EVAL. CRITERIA:	Verify that requests submitted by the user are processed correctly by Analysis. Verify that multiple submissions are correctly handled. Verify that status message updates are displayed to the user.

System Test Case Descriptions - Release 1.0

TEST CASE ID:	0703
TEST CASE NAME:	Produce Analysis Output Product

PURPOSE:	Verify the production of the requested analysis products. Verify that the results of the analysis processing are correctly displayed to the user.
DESCRIPTION:	Receive requested analysis products
LVL-1 THREADS:	
LVL-2 THREADS:	7.2.2.1p 7.2.8.1 7.2.7.4
TEST_INPUTS:	User-defined requests created in Test Case #0701
PREREQUISITES:	Available CCS, test data, test automation software (XRUNNER) scripts
EXPECTED RESULTS:	Receipt of the requested output by the user: or, the receipt of a status message indicating to the user that the requested product could not be provided, and why.
EVAL. CRITERIA:	Successful receipt of the requested output by the user. Data output will be compared with data input to CCS to verify accuracy of data. Proper status reporting will be verified.

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1702
TEST CASE NAME:	All R/T ENG Formats
PURPOSE:	Verify the capability to detect all valid HST ENG TLM formats based on database defined format IDs. Verify that invalid format IDs are detected and not processed
DESCRIPTION:	XMT valid ENG TLM. Observe the display pages. Run ANALYSIS queries to verify the format ID of the stored data.Repeat this process for each valid HST ENG format ID.Attempt invalid format ID data transmission.
LVL-1 THREADS:	1.1.1 7.1.1 7.1.2 7.1.8 7.1.7 17.1.4 16.1.1 17.1.1
LVL-2 THREADS:	
TEST_INPUTS:	Test display page:1702 PSS scenario files: 1702ALL.SCN,1702TF.SCN,1702TN.SCN,1702AF.SCN,1702AN.SCN,1702AF.SCN,1702FF.SCN,1702FN.SCN,1702PF.SCN,1702PN.SCN,1702XF.SCN,1702XN.SCN,1702YF.SCN,1702YN,SCN,1702ZF.SCN,1702ZN.SCN,1702ZF.SCN,1702ZN.SCN,1702HF.SCN,1702HN.SCN,1702C.SCN,1702D5.SCN,1702S.SCN,1702D4.SCN,1702BAD.SCN Xrunner script files: main1702,login1702,rtpage1702,datreq1702,jobstat1702
PREREQUISITES:	Available CCS:Test Simulator/Data, Test Automation Software, GPS time source
EXPECTED RESULTS:	FEP accepts every HST ENG TLM format. All valid formats are archived. Invalid FMTs are discarded. FMT ID is correctly displayed on page. Backup material: Excel spreadsheet:1702.res
EVAL. CRITERIA:	Verify that the ANALYSIS output lists the correct format ID.Compare with test data inputs.Verify that the display page lists the correct FMT ID

System Test Case Descriptions - Release 1.0

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1706
TEST CASE NAME:	Special Raw Data Decommutation

PURPOSE:	Verify the assembly of raw data from multiple and non-contiguous bits and words. Verify the capability of the FEP to interface with JSC for real-time engineering telemetry. Verify the capability to ingest and store engineering data from ORU/ORIs.
DESCRIPTION:	XMT ENG data to DMG. Observe values on display pages.Following data dropout, run ANALYSIS queries to verify raw and EU converted value of the stored test mnemonics.
LVL-1 THREADS:	1.1.1 17.1.1 16.1.1 7.1.1 17.1.4 7.1.2 7.1.8 7.1.7
LVL-2 THREADS:	
TEST_INPUTS:	Test display page:1706 PSS disk files:1706.an,1706.hn,1706.de PSS scenario files::1706.scn Xrunner script files: main1706,login1706,rtpage1706,datreq1706,jobstat1706
PREREQUISITES:	Available CCS: PSS, Test Automation S/W, GPS time source
EXPECTED RESULTS:	TLM parameters with multiple 'pieces' are constructed from the database definition(start bit, number of bits, location of data in downlink, storage location for data). Backup material:Excel spreadsheet:1706AN.RES,1706HN.RES,1706DE.RES
EVAL. CRITERIA:	Verify that the ANALYSIS reports values which correspond to the test data inputs

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1709
TEST CASE NAME:	Engineering Unit (EU) Conversio

PURPOSE:	Verify the ability to correctly convert raw PCM counts to EU based on calibration coefficients contained in the database
DESCRIPTION:	XMT ENG data to DMG. Observe values on the display pages. ANALYSIS queries will be run to verify stored values.
LVL-1 THREADS:	1.1.1 7.1.2 7.1.1 7.1.8 7.1.7 16.1.1 17.1.1 17.1.4
LVL-2 THREADS:	
TEST_INPUTS:	Test display page:1709 PSS disk files::1709.an, 1709.hn 1709.de PSS scenario files:1709.scn Xrunner script files:main1702,login1702,rtpage1702,datreq1702,jobstat1702
PREREQUISITES:	Available CCS: PSS, Test Automation S/W, GPS time source
EXPECTED RESULTS:	EU conversion based on calibration coefficients contained in the database.
EVAL. CRITERIA:	Verify that the ANALYSIS output lists the raw PCM count and the corresponding EU value.Compare with test data inputs

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1711
TEST CASE NAME:	Limits Sensing

PURPOSE:	Verify the capability to limit check any decommutated TLM parameter using limit values defined in the database. Verify that the test display page indicates limit violations.
DESCRIPTION:	XMT ENG data to DMG. Observe the limit violation indicators on the display pages for the selected test mnemonics. Following data dropout, ANALYSIS queries will be run to verify limit violations
LVL-1 THREADS:	1.1.1 16.1.1 17.1.1 17.1.4 7.1.1 7.1.8 7.1.2 7.1.7
LVL-2 THREADS:	
TEST_INPUTS:	Test display page:1711A,1711B PSS disk files:1711.AN, 1711.HN PSS Scenario files:1711.SCN Xrunner script files: main1711,login1711,rtpage1711,datreq1711,jobstat1711
PREREQUISITES:	Available CCS:PSS, Test Automation S/W,GPS time source
EXPECTED RESULTS:	LIMITS sensing based on limit values defined in the database Backup material:Excel spreadsheet:1711AN.RES,1711HN,RES
EVAL. CRITERIA:	Verify that the limit violations listed in the ANALYSIS output and on the display pages correspond to the values defined in the database. Compare with test data inputs

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1716
TEST CASE NAME:	Delta Noise Screening

PURPOSE:	Verify the capability to apply delta values to TLM parameters as defined in the database
DESCRIPTION:	XMT ENG data to DMG. Following data dropout, run ANALYSIS queries to verify stored values correctly indicate DELTA errors.
LVL-1 THREADS:	7.1.2 1.1.1 17.1.1 7.1.7 17.1.4 7.1.8 16.1.1 7.1.1
LVL-2 THREADS:	
TEST_INPUTS:	Test display page:1716 PSS disk file:1716.AN,1716.HN.1716.DE PSS scenario files:1716.SCN Xrunner script files: main1716,login1716,rtpage1716,datreq1716,jobstat1716
PREREQUISITES:	Available CCS: PSS, Test Automation S/W,GPS time source
EXPECTED RESULTS:	DELTA noise screening based on delta values defined in the database
EVAL. CRITERIA:	Verify that the delta errors listed listed in the ANALYSIS output correspond to the values defined in the database. Compare with test data inputs

TEST CASE ID:	1721
TEST CASE NAME:	File Catalog Table Update

PURPOSE:	To verify that the engineering telemetry was received and stored, and the file catalog is updated upon ingest.
DESCRIPTION:	FEP sends engineering telemetry FOF packets to DMG for data ingest. DMG stores the data on the DIA volume (note: there are several FOF packets in each ingest file. In the continuous telemetry transmission state, files holds one hour of telemetry data). Verify file catalog table entry.
LVL-1 THREADS:	
LVL-2 THREADS:	17.2.4.1 17.2.4.2 17.2.4.6
TEST_INPUTS:	HN formatted telemetry with SCT, CCS time, and NGT parameters.
PREREQUISITES:	Test Case 1723 and 1725, available CCS, FEP, PSS, SQL procedures to view the Telemetry Catalog (list.sql), adequate disk space for up to four hours of continuous telemetry data. Xrunner test script main1721.
EXPECTED RESULTS:	All FOF packets sent are placed in storage by the Real-Time Ingest process. Each stored file in the ingest area holds one hour of telemetry data. Upon receiving the FOF end of file, Real-Time Ingest request a catalog entry to the Manage CCS DB process where the File Catalog Table Update subprocess handles updating the file catalog.
EVAL. CRITERIA:	Note all files in the storage area before and after data ingest. Verify that all ENG TLM packets ingest are properly stored in Intermediate File storage area. Verify data is not inadvertently deleted. Verify the catalog corresponds to the storage area. Verify the state information is correct.

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1723
TEST CASE NAME:	Load PRD from flat file to DMG

PURPOSE:	To verify that PRD flat file can be properly loaded into DMG Oracle.
DESCRIPTION:	Perform PRD flat file loads to Oracle in data management.
LVL-1 THREADS:	
LVL-2 THREADS:	
TEST_INPUTS:	CCS time, PRD flat file for v25 and v50A.
PREREQUISITES:	Available CCS, FEP, SQL procedures to delete or truncate version 50.A data out of current tables (delete_perm_tables.sql), view the PRD catalog, and to query the PRD: load_script1, load_script2, and load_script3. Available PRD versions (v25 and v50A). Xrunner test script main1723.
EXPECTED RESULTS:	All PRD loads are placed in storage. Catalog entry for each PRD load.
EVAL. CRITERIA:	Note all PRD files in the storage area before and after data ingest. Verify that all PRD loads are properly stored. Verify data is not inadvertently deleted. Verify the catalog corresponds to the storage area. Verify the *.bad log is empty.

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1750
TEST CASE NAME:	User-Defrined Pages

PURPOSE:	Verify the GUI provides the CCS user the facilities to build user-defined pages. Verify that the new page can be saved for later use and then recalled. Verify that the user can manipulate the page window and components (e.g., move, align, resize and delete) per the requirements.
DESCRIPTION:	Login to the CCS main page. Select Real-time Page from Tool Bar. Select appropriate menu options to build a new page, save the page, and then recall the page. Capture and print a copy of the final page content.
LVL-1 THREADS:	6 7 17A
LVL-2 THREADS:	
TEST_INPUTS:	Xrunner script main1750 and all scripts called by main1750.
PREREQUISITES:	CCS online and in nominal state.Tester logged into a CCS user workstation. Xrunner ready to animate main1750 script.
EXPECTED RESULTS:	Observe that the tester can successfully build a new page containing several mnemonics. Observe the page being saved and then recalled and redisplayed. Observe that the page window and components on the page can be manipulated.
EVAL. CRITERIA:	Visually verify the results of the test during the test run.

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1752
TEST CASE NAME:	MSKVIEW Pages

PURPOSE:	Verify the CCS is capable of storing and displaying existing MSKVIEW pages. Verify the MSKVIEW displays the correct values for HST TLM.
DESCRIPTION:	Login to CCS main page. Select MSK View from Tool Bar. Select two MSKVIEWs to be displayed containing HST mnemonics. Simultaneously run test case 1706 on an adjacent CCS workstation. Observe that the mnemonic values are the same, where appropriate, between the 1706 Real-time page and the MSKVIEWs. Attempt to resize an MSKVIEW page. Manually capture display pages and print from both workstations as needed.
LVL-1 THREADS:	6 7 17A
LVL-2 THREADS:	
TEST_INPUTS:	TLM data and Excel spreadsheets containing expected results for test case 1706 (refer to test case 1706 test case description). Xrunner script main1752 and all scripts called by main1752.
PREREQUISITES:	CCS and PSS online and in nominal state. Tester logged into two CCS workstation. Xrunner ready to animate main1752 and main1706 scripts on adjacent workstations. PSS ready to output TLM associated with test case 1706.
EXPECTED RESULTS:	Observe that CCS provides the user a list of available MSKVIEWs to open. Observe that the MSKVIEW is displayed and shows alphanumeric and labeled components. Observe that the MSKVIEW displays correct values for several mnemonics as compared to the real-time page for 1706. Observe that an MSKVIEW page is not resizeable.
EVAL. CRITERIA:	Visually verify the results of the test during the test run.

TEST CASE ID:	1753
TEST CASE NAME:	Page Components

PURPOSE:	Verify that the CCS can display real-time values in a range of specified formats and optionally display appropriate units-of-measure and optionally defined text labels.
DESCRIPTION:	Login to the CCS main page. Select Real-time Page from Tool Bar. Open a pre-defined page named 1753 . Start canned TLM data for format zn at the PSS. Observe the page. Capture and print the final page content.
LVL-1 THREADS:	6 7 17A
LVL-2 THREADS:	
TEST_INPUTS:	Canned PSS zn TLM data. Xrunner script main1753 and all scripts called by main1753. Pre-defined real-time page named 1753 .
PREREQUISITES:	CCS and PSS online in nominal state. Tester logged into CCS workstation. Xrunner ready to animate main1753 script. PSS setup to output canned zn TLM.
EXPECTED RESULTS:	Observe the real-time page during the test run. Check to make sure that the mnemonic values are correct for each format. Check to make sure that the units-of-measure are correct. Check to make sure that one of the text labels is not a default mnemonic tag.
EVAL. CRITERIA:	Visually verify the results of the test during the test run.

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1754
TEST CASE NAME:	Stripchart Components

PURPOSE:	Verify the GUI provides the CCS user the facilities to build user-defined pages containing strip charts. Verify that the user can vary the time span, duration, axis values and labels, timestamps, time intervals, plot line colors, and zoom in and out on a selected portion of the plot.
DESCRIPTION:	Login to the CCS main page. Select Real-time Page from the Tool Bar. Select appropriate menu options to build a new page containing a strip chart. Start PSS TLM. Use the GUI options to vary the stripchart parameters. Observe all changes. Zoom in and out on a selected area of the stripchart. Capture and print a copy of the final page content.
LVL-1 THREADS:	6 7 17A
LVL-2 THREADS:	
TEST_INPUTS:	Xrunner script main1754 and all scripts called by main1754. PSS 1702tf.scn scenario file.
PREREQUISITES:	CCS and PSS online and in nominal state. Tester logged into a CCS user workstation. Xrunner ready to animate main1754 script. PSS setup to output TLM data using 1702tf.scn scenario.
EXPECTED RESULTS:	Observe that the tester can successfully build a new page containing a strip chart. Observe that the stripchart parameters can be varied.
EVAL. CRITERIA:	Visually verify the results of the test during the test run.

System Test Case Descriptions - Release 1.0

TEST CASE ID:	1755
TEST CASE NAME:	Tab Components

PURPOSE:	Verify the GUI provides the CCS user the facilities to build user-defined pages containing tab components. Verify the user can modify the tab names.
DESCRIPTION:	Login to the CCS main page. Select Real-time Page from Tool Bar. Select appropriate menu options to build a new page with Tab components. Change the names of the tabs. Capture and print a copy of the final page content.
LVL-1 THREADS:	6 7 17A
LVL-2 THREADS:	
TEST_INPUTS:	Xrunner script main1755 and all scripts called by main1755.
PREREQUISITES:	CCS online and in nominal state. Tester logged into a CCS user workstation. Xrunner ready to animate main1755 script.
EXPECTED RESULTS:	Observe that the tester can successfully build a new page containing tab components. Observe that the tab names can be modified.
EVAL. CRITERIA:	Visually verify the results of the test during the test run.